

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (currently amended): Method for measuring a
2 talking quality of a communication link in a
3 communications network, the method comprising:
4 a main step of subjecting a degraded speech signal
5 $s'(t)$ with respect to a reference speech signal $s(t)$ to an
6 objective measurement technique for measuring a perceptual
7 quality of speech signals, and producing a quality signal
8 q which represents an estimated value concerning the
9 talking quality degradation;
10 the degraded speech signal comprising a returned
11 signal $r(t)$;
12 in which the objective measurement technique
13 comprises a step of modelling masking effects in
14 consequence of noise present in the returned signal
15 comprising the determination of a dynamic threshold noise
16 level, by determining a successive local minimum values of
17 the degraded speech signal $s'(t)$.

1 Claim 2 (original): Method according to claim 1, in which
2 the reference speech signal $s(t)$ comprises a silence
3 period and the threshold noise level is determined in the
4 part of the degraded speech signal $s'(t)$ corresponding to
5 the silence period in the reference speech signal $s(t)$.

1 Claim 3 (original): Method according to claim 2, in which
2 the silence period is provided at the start of the
3 reference speech signal $s(t)$.

1 Claim 4 (original): Method according to claim 3, in which
2 the silence period has a duration of at least 0.5 sec,
3 more preferably at least 0.9 sec.

1 Claim 5 (original): Method according to claim 1, in which
2 the threshold noise level is estimated as local minimum
3 values of successive parts of the degraded speech
4 signal $s'(t)$.

1 Claim 6 (original): Method according to claim 1, in which
2 the threshold noise level is estimated as the local
3 minimum value of the degraded speech signal $s'(t)$ in a
4 predefined value range.

1 Claim 7 (previously presented): Method according to
2 claim 1, in which the main step comprises:
3 a first processing step of processing the degraded
4 speech signal $s'(t)$ and generating a first representation
5 signal $R'(t,f)$;
6 a second processing step of processing the reference
7 speech signal $s(t)$ and generating a second representation
8 signal $R(t,f)$;
9 a step of subtracting the first representation signal
10 from the second representation signal as to produce a
11 difference signal $D(t,f)$;
12 a first substep of producing an estimated value N_e of
13 the loudness of the noise present in the returned signal;
14 and

15 a second substep of noise suppression ~~(42)~~ carried
16 out on the difference signal using said produced estimated
17 value N_e as to produce the modified difference signal
18 $D'(t, f)$; and
19 a step of integrating the modified difference signal
20 $D'(t, f)$ with respect to frequency and time as to produce
21 the quality signal q .

1 Claim 8 (currently amended): Device for measuring a
2 talking quality of a communication link in a
3 communications network, the device comprising:
4 measurement means connected to the communication
5 link, the measurement means being arranged to subject a
6 degraded speech signal $s'(t)$ with respect to a reference
7 speech signal $s(t)$ to an objective measurement technique
8 for measuring a perceptual quality of speech signals, and
9 producing a quality signal (q) which represents an
10 estimated value concerning the talking quality
11 degradation;

12 the degraded speech signal comprising a returned
13 signal $r(t)$;

14 in which the measurement means are arranged to
15 execute the objective measurement technique by modelling
16 masking effects in consequence of noise present in the
17 returned signal in which the objective measurement
18 technique comprises the determination of a dynamic
19 threshold noise level by determining a successive local
20 minimum values of the degraded speech signal $s'(t)$.

1 Claim 9 (original): Device according to claim 8, in which
2 the reference speech signal $s(t)$ comprises a silence
3 period and the measurement means are further arranged to

4 determine the threshold noise level in the part of the
5 degraded speech signal $s'(t)$ corresponding to the silence
6 period in the reference speech signal $s(t)$.

1 Claim 10 (original): Device according to claim 9, in which
2 the silence period is provided at the start of the
3 reference speech signal $s(t)$.

1 Claim 11 (original): Device according to claim 10, in
2 which the silence period has a duration of at least
3 0.5 sec, more preferably at least 0.9 sec.

1 Claim 12 (original): Device according to claim 8, in which
2 the measurement means are arranged to estimate the
3 threshold noise level as local minimum values of
4 successive parts of the degraded speech signal $s'(t)$.

1 Claim 13 (original): Device according to claim 8, in which
2 the measurement means are arranged to estimate the
3 threshold noise level as the local minimum value of the
4 degraded speech signal $s'(t)$ in a predefined value range.

1 Claim 14 (previously presented): Device according to
2 claim 8, in which the device comprises:

3 first processing means for processing the degraded
4 speech signal $s'(t)$ and generating a first representation
5 signal $R'(t,f)$, the first representation signal $R'(t,f)$
6 being a representation signal of a signal combination of
7 the talker speech signal and the returned signal;

8 second processing means for processing the talker
9 speech signal $s(t)$ and generating a second representation
10 signal $R(t,f)$;

11 combining means for combining the first and second
12 representation signals as to produce said output signal q ,
13 the combining means including

14 subtracting means for subtracting the first
15 representation signal from the second representation
16 signal as to produce a difference signal $D(t,f)$;

17 modelling means for modelling the masking
18 effects carried out on the difference signal as to produce
19 a modified difference signal, including means ~~(41)~~ for
20 producing an estimated value N_e of the loudness of the
21 noise present in the returned signal, and means ~~(42)~~ for
22 carrying out a noise suppression on the difference signal
23 using said produced estimated value N_e , and for producing
24 the modified difference signal $D'(t,f)$; and

25 integrating means for integrating the modified
26 difference signal with respect to frequency and time as to
27 produce the quality signal q .